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MOSER, PAT	TTERSON & SHERIDA	ZERVIGON, RUDY		
APPLIED MATERIALS, INC. 3040 POST OAK BOULEVARD, SUITE 1500 HOUSTON, TX 77056			ART UNIT	PAPER NUMBER
			1763	
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DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)			
Office Action Summary		10/712,690	CHEN ET AL.			
		Examiner	Art Unit			
		Rudy Zervigon	1763			
Period fo	The MAILING DATE of this communication or or Reply	appears on the cover sheet with	the correspondence address			
THE   - External effect of the control of the contr	ORTENED STATUTORY PERIOD FOR REI MAILING DATE OF THIS COMMUNICATION INSIGNS of time may be available under the provisions of 37 CFR SIX (6) MONTHS from the mailing date of this communication. In period for reply specified above is less than thirty (30) days, a period for reply is specified above, the maximum statutory perior to reply within the set or extended period for reply will, by stareply received by the Office later than three months after the may be patent term adjustment. See 37 CFR 1.704(b).	N. 1.136(a). In no event, however, may a repreply within the statutory minimum of thirty (in will apply and will expire SIX (6) MONTHISTATE.	ly be timely filed  30) days will be considered timely.  IS from the mailing date of this communication.  NDONED (35 U.S.C. § 133).			
Status						
1)🖂	Responsive to communication(s) filed on 07	7 February 2005.				
2a) <u></u> ☐	This action is <b>FINAL</b> . 2b)⊠ T	his action is non-final.				
3)□	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Dispositi	ion of Claims					
5)□ 6)⊠ 7)□	Claim(s) <u>1-20</u> is/are pending in the applicati 4a) Of the above claim(s) <u>16-20</u> is/are withd Claim(s) is/are allowed. Claim(s) <u>1-15</u> is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and	rawn from consideration.				
Applicati	ion Papers					
9)[	The specification is objected to by the Exam	iner.				
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority u	ınder 35 U.S.C. § 119					
a)l	Acknowledgment is made of a claim for foreign All b) Some * c) None of:  1. Certified copies of the priority docume 2. Certified copies of the priority docume 3. Copies of the certified copies of the papplication from the International Burdsee the attached detailed Office action for a least section.	ents have been received. ents have been received in Appriority documents have been re eau (PCT Rule 17.2(a)).	olication No eceived in this National Stage			
Attachmen	t(s)					
2) Notic 3) Inform	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449 or PTO/SB/r r No(s)/Mail Date <u>All</u> .	Paper No(s)/l	mmary (PTO-413) Mail Date ormal Patent Application (PTO-152)			

AIT OIII. 1703

#### **DETAILED ACTION**

#### Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-15, drawn to a deposition apparatus, classified in class 118, subclass

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715.

II. Claims 16-20, drawn to a method of depositing, classified in class 427, subclass

248.1.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process and apparatus for its practice. The inventions are

distinct if it can be shown that either: (1) the process as claimed can be practiced by another

materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice

another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus as

claimed can be used to practice another and materially different process, for example, an etching

process.

3. Because these inventions are distinct for the reasons given above and have acquired a

separate status in the art as shown by their different classification, restriction for examination

purposes as indicated is proper.

During a telephone conversation with Tammy Thomas for Keith Tacket on August 3,

2005 a provisional election was made without traverse to prosecute the invention of Group I,

claims 1-15. Affirmation of this election must be made by applicant in replying to this Office

action. Claims 16-20 are withdrawn from further consideration by the examiner, 37

CFR 1.142(b), as being drawn to a non-elected invention.

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5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

# Claim Rejections - 35 USC § 112

- 6. The following is a quotation of the first paragraph of 35 U.S.C. 112:
  - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 7. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant claims "the gap has a variable height to control fluid flow therethrough". Applicant's specification only teaches interchanging the height dimension as by interchaning pieces with variable height dimensions. In this sense Applicant's "height" is invariable during processing.

## Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8, and 10-16 of copending Application No. 10/281,079 in view of Carducci; James D et al. (US 6,716,302 B2). Although the conflicting claims are not identical, they are not patentably distinct from each other because, for example, the claims of the present invention claims an "insulating plate" whereas the claims of Application No. 10/281,079 do not claim an "insulating plate".

Carducci teaches a gas injector (350a-c; Figures 7a-c) for a processing chamber (112; Figure 2) including a thermal insulating plate (134; Figures 7a-c; column 15, lines 1-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Carducci's thermal insulating plate to the apparatus claims of the present invention.

Motivation to add Carducci's thermal insulating plate to the apparatus claims of the present invention, is for preventing film depositions on the chamber surfaces during processing as taught by Carducci (column 12; lines 28-45).

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 1-15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-51 of copending Application No. 10/894,774 in view of Carducci; James D et al. (US 6,716,302 B2). Although the conflicting claims are not identical, they are not patentably distinct from each other because,

for example, the claims of the present invention claims an "insulating plate" whereas the claims of Application No. 10/894,774 do not claim an "insulating plate".

Carducci teaches a gas injector (350a-c; Figures 7a-c) for a processing chamber (112; Figure 2) including a thermal insulating plate (134; Figures 7a-c; column 15, lines 1-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Carducci's thermal insulating plate to the apparatus claims of the present invention.

Motivation to add Carducci's thermal insulating plate to the apparatus claims of the present invention, is for preventing film depositions on the chamber surfaces during processing as taught by Carducci (column 12; lines 28-45).

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. Claims 1-15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11-35 of copending Application No. 10/268,438 in view of Carducci; James D et al. (US 6,716,302 B2). Although the conflicting claims are not identical, they are not patentably distinct from each other because, for example, the claims of the present invention claims an "insulating plate" whereas the claims of Application No. 10/268,438 do not claim an "insulating plate".

Carducci teaches a gas injector (350a-c; Figures 7a-c) for a processing chamber (112; Figure 2) including a thermal insulating plate (134; Figures 7a-c; column 15, lines 1-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Carducci's thermal insulating plate to the apparatus claims of the present invention.

Motivation to add Carducci's thermal insulating plate to the apparatus claims of the present invention, is for preventing film depositions on the chamber surfaces during processing as taught by Carducci (column 12; lines 28-45).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-15 are provisionally rejected under the judicially created doctrine of 12. obviousness-type double patenting as being unpatentable over claims 10-14, 24-27, 42-48, 61-69, 83-88, and 95-100 of copending Application No. 10/241,373 in view of Carducci; James D et al. (US 6,716,302 B2). Although the conflicting claims are not identical, they are not patentably distinct from each other because, for example, the claims of the present invention claims an "insulating plate" whereas the claims of Application No. 10/241,373 do not claim an "insulating plate".

Carducci teaches a gas injector (350a-c; Figures 7a-c) for a processing chamber (112; Figure 2) including a thermal insulating plate (134; Figures 7a-c; column 15, lines 1-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Carducci's thermal insulating plate to the apparatus claims of the present invention.

Motivation to add Carducci's thermal insulating plate to the apparatus claims of the present invention, is for preventing film depositions on the chamber surfaces during processing as taught by Carducci (column 12; lines 28-45).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-15 are rejected under the judicially created doctrine of obviousness-type double 13. patenting as being unpatentable over claims 1-21 of U.S. Patent No. 6,916,398 in view of Carducci; James D et al. (US 6,716,302 B2). Although the conflicting claims are not identical, they are not patentably distinct from each other because, for example, the claims of the present invention claims an "insulating plate" whereas the claims of U.S. Patent No. 6,916,398 do not claim an "insulating plate".

Carducci teaches a gas injector (350a-c; Figures 7a-c) for a processing chamber (112, Figure 2) including a thermal insulating plate (134; Figures 7a-c; column 15, lines 1-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Carducci's thermal insulating plate to the apparatus claims of the present invention.

Motivation to add Carducci's thermal insulating plate to the apparatus claims of the present invention, is for preventing film depositions on the chamber surfaces during processing as taught by Carducci (column 12; lines 28-45).

## Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 15. Claims 1-5, 7, 8, and 10-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen; Ling et al. (US 6,916,398 B2).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Chen teaches an apparatus (Figure 1; column 3, line 62 - column 4, line 54) capable of performing multiple deposition (column 2, lines 5-17) processes, comprising: a chamber body (200; Figure 1; column 3, line 62 - column 4, line 54); and a gas distribution assembly (230; Figure 1; column 3, line 62 - column 4, line 54) comprising: a gas conduit (250A/B; Figure 1; column 3, line 62 - column 4, line 54) in fluid communication with the chamber body (200; Figure 1; column 3, line 62 - column 4, line 54); two or more isolated gas inlets (236A/B; Figure 3; column 6, lines 14-38) equipped with one or more high speed actuating valves (242A/B, 252A/B; Figure 1; column 3, line 62 - column 4, line 54) in fluid communication with the gas conduit (250A/B; Figure 1; column 3, line 62 - column 4, line 54), the valves adapted to alternately pulse two or more gases into the gas conduit (250A/B; Figure 1; column 3, line 62 column 4, line 54); and a mixing channel (Volume 234; Figure 3; column 6, lines 14-38) in fluid communication with the gas conduit (250A/B; Figure 1; column 3, line 62 - column 4, line 54), the mixing channel (Volume 234; Figure 3; column 6, lines 14-38) adapted to deliver a continuous flow of one or more compounds into the gas conduit (250A/B; Figure 1; column 3, line 62 - column 4, line 54), as claimed by claim 1

Chen further teaches:

- i. The apparatus (Figure 1; column 3, line 62 column 4, line 54) of claim 1, wherein the gas conduit (250A/B; Figure 1; column 3, line 62 column 4, line 54) comprises a gradually increasing inner diameter (column 6; lines 33-37), as claimed by claim 2
- The apparatus (Figure 1; column 3, line 62 column 4, line 54) of claim 1, wherein the gas conduit (250A/B; Figure 1; column 3, line 62 column 4, line 54) has a frusto-conical shape (column 6; lines 33-37), as claimed by claim 3 It is the Examiner's position that if a gas conduit has "a gradually increasing inner diameter", as claimed by claim 2, then it must be "a frusto-conical shape".
- The apparatus (Figure 1; column 3, line 62 column 4, line 54) of claim 1, wherein the mixing channel (Volume 234; Figure 3; column 6, lines 14-38) is in fluid communication with the gas conduit (250A/B; Figure 1; column 3, line 62 column 4, line 54) via one or more passageways (outlets of 236A/B; Figure 3; column 6, lines 14-38) formed within the mixing channel (Volume 234; Figure 3; column 6, lines 14-38), as claimed by claim 4 iv. The apparatus (Figure 1; column 3, line 62 column 4, line 54) of claim 1, wherein the gas distribution assembly (230; Figure 1; column 3, line 62 column 4, line 54) further
  - gas distribution assembly (230; Figure 1; column 3, line 62 column 4, line 54) further comprises a lid plate (232; Figure 1; column 3, line 62 column 4, line 54) disposed on the chamber body (200; Figure 1; column 3, line 62 column 4, line 54), as claimed by claim 5
- v. An apparatus (Figure 1; column 3, line 62 column 4, line 54) capable of performing multiple deposition (column 2, lines 5-17) processes, comprising: a chamber body (200; Figure 1; column 3, line 62 column 4, line 54); and a gas distribution assembly (230; Figure 1; column 3, line 62 column 4, line 54) comprising: a gas conduit (250A/B;

Figure 1; column 3, line 62 - column 4, line 54) in fluid communication with the chamber body (200; Figure 1; column 3, line 62 - column 4, line 54); at least two separate flow paths (302A/B; Figure 3; column 6, lines 14-38) in fluid communication with the gas conduit (250A/B; Figure 1; column 3, line 62 - column 4, line 54) at a first end thereof, each isolated flow path having one or more high speed actuating valves (242A/B, 252A/B; Figure 1; column 3, line 62 - column 4, line 54); and at least one annular mixing channel (Volume 234; Figure 3; column 6, lines 14-38) disposed about the gas conduit (250A/B; Figure 1; column 3, line 62 - column 4, line 54) at a second end thereof, the mixing channel (Volume 234; Figure 3; column 6, lines 14-38) in fluid communication with the gas conduit (250A/B; Figure 1; column 3, line 62 - column 4, line 54) via one or more passageways (outlets of 236A/B; Figure 3; column 6, lines 14-38) formed therethrough; wherein the flow paths (302A/B; Figure 3; column 6, lines 14-38) are isolated from the mixing channel (Volume 234; Figure 3; column 6, lines 14-38) by a pressure differential created within the gas distribution assembly (230; Figure 1; column 3, line 62 - column 4, line 54), as claimed by claim 7 - Applicant's claimed limitation of "by a pressure differential created within the gas distribution assembly" is a claim requirement of intended use. Further, it has been held that claim language that simply specifies an intended use or field of use for the invention generally will not limit the scope of a claim (Walter, 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the

intended use, then it meets the claim (In re Casey,152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963); MPEP2111.02). Further, when the structure recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent (In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977); MPEP 2112.01).

- vi. The apparatus (Figure 1; column 3, line 62 column 4, line 54) of claim 7, wherein the gas distribution assembly (230; Figure 1; column 3, line 62 column 4, line 54) further comprises a lid plate (232; Figure 1; column 3, line 62 column 4, line 54) disposed on the chamber body (200; Figure 1; column 3, line 62 column 4, line 54), the lid plate (232; Figure 1; column 3, line 62 column 4, line 54) having a conical concave lower surface (See Figure 1, no label) to help evenly distribute gases within the chamber body (200; Figure 1; column 3, line 62 column 4, line 54), as claimed by claim 8
- vii. The apparatus (Figure 1; column 3, line 62 column 4, line 54) of claim 7, wherein the one or more passageways (outlets of 236A/B; Figure 3; column 6, lines 14-38) comprises a plurality (two) of nozzles formed within an inner wall of the mixing channel (Volume 234; Figure 3; column 6, lines 14-38), as claimed by claim 10
- viii. The apparatus (Figure 1; column 3, line 62 column 4, line 54) of claim 10, wherein the nozzles are disposed substantially perpendicular (compare Applicant's Figure 2 and Figure 3 of Chen) in relation to the gas conduit (250A/B; Figure 1; column 3, line 62 column 4, line 54), as claimed by claim 11
- ix. The apparatus (Figure 1; column 3, line 62 column 4, line 54) of claim 10, wherein the nozzles are disposed at an angle (compare Applicant's Figure 2 and Figure 3 of Chen) in

relation to the gas conduit (250A/B; Figure 1; column 3, line 62 - column 4, line 54), as claimed by claim 12

- x. The apparatus (Figure 1; column 3, line 62 column 4, line 54) of claim 7, wherein the one or more passageways (outlets of 236A/B; Figure 3; column 6, lines 14-38) comprises a gap (separating distance between 236A/B) disposed within an inner wall of the mixing channel (Volume 234; Figure 3; column 6, lines 14-38), as claimed by claim 13
- xi. The apparatus (Figure 1; column 3, line 62 column 4, line 54) of claim 7, wherein the gas conduit (250A/B; Figure 1; column 3, line 62 column 4, line 54) comprises a gradually increasing inner diameter (column 6; lines 33-37) from inlet to outlet, as claimed by claim 15

# Claim Rejections - 35 USC § 103

- 16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 17. Claims 6, 9, and 14 are rejected under 35 U.S.C. 103(a) as being obvious over Chen; Ling et al. (US 6,916,398 B2) in view of Carducci; James D et al. (US 6,716,302 B2).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of

invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

## Chen does not teach:

- i. The apparatus (Figure 1; column 3, line 62 column 4, line 54) of claim 1, wherein the gas distribution assembly (230; Figure 1; column 3, line 62 column 4, line 54) further comprises an insulating plate disposed on the lid plate (232; Figure 1; column 3, line 62 column 4, line 54), as claimed by claim 6
- ii. The apparatus (Figure 1; column 3, line 62 column 4, line 54) of claim 7, wherein the gas distribution assembly (230; Figure 1; column 3, line 62 column 4, line 54) further comprises a thermal plate disposed on the lid plate (232; Figure 1; column 3, line 62 column 4, line 54), as claimed by claim 9
- iii. The apparatus (Figure 1; column 3, line 62 column 4, line 54) of claim 13, wherein the gap has a variable height to control fluid flow therethrough, as claimed by claim 14

Carducci teaches a gas injector (350a-c; Figures 7a-c) for a processing chamber (112; Figure 2) including a thermal insulating plate (134; Figures 7a-c; column 15, lines 1-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Carducci's thermal insulating plate to Chen's apparatus, including optimizing Chen's "variable height" dimension.

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Motivation to add Carducci's thermal insulating plate to Chen's apparatus, including optimizing Chen's "variable height" dimension is for preventing film depositions on the chamber surfaces during processing as taught by Carducci (column 12; lines 28-45). Further, it is well established that changes in apparatus dimensions are within the level of ordinary skill in the art.(Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); In re Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); See MPEP 2144.04).

### Conclusion

- 18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 4,761,269 A
- 19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Rudy Zervigon whose telephone number is (571) 272.1442. The examiner can normally be reached on a Monday through Thursday schedule from 8am through 7pm. The official fax phone number for the 1763 art unit is (703) 872-9306. Any Inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Chemical and Materials Engineering art unit receptionist at (571) 272-1700. If the examiner can not be reached please contact the examiner's supervisor, Parviz Hassanzadeh, at (571) 272-1435.